The herpetofauna of Kimolos (Milos Archipelago, Greece)

The Island of Kimolos, second largest island of the Milos Archipelago (Cyclades, Greece) is about 37 km² in size, separated from the main Island of Milos by a one-kilometer-wide sea strait. Kimolos has mainly steep coasts with a few beaches. The highest point on the island (Paleokastro, 397 m a.s.l.) is located in the mountainous north-The uninhabited west (Fohrer 2009). neighboring island of Polyaigos (17 km²) and parts of Kimolos form the Natura2000 object GR 4220006. Its best known animal inhabitants are the monk seal (Monachus monachus), represented by about fifty specimens constituting the third biggest population of the species, and two endemic reptile species, namely the Cyclades Blunt-nosed Viper or Milos Viper, Macrovipera schweizeri (WERNER, 1935) and the Milos Wall Lizard, Podarcis milensis (BEDRIAGA, 1882).

WERNER (1938) listed five reptile species for Kimolos and BUTTLE (1993, 1994) added five more (first mention and the present author's comments and observations in brackets):

Mediodactylus kotschyi (STEINDACH-NER, 1870) [WERNER (1935); widespread and common], Hemidactylus turcicus (LINNAEUS, 1758) [BUTTLE (1993); not seen during the author's visit],

Podarcis milensis milensis (Bedria-GA, 1882) [Schweizer (1935); common],

Lacerta trilineata hansschweizeri L. MÜLLER, 1935 [SCHWEIZER (1935); seen between Chora and Alyki],

Ablepharus kitaibelii kitaibelii (BIBRON & BORY ST-VINCENT, 1833) [BUTTLE (1994); several sightings],

Eryx jaculus turcicus (OLIVIER, 1801) [BEDRIAGA (1882: 132); not seen during the author's visit],

Natrix natrix schweizeri L. MÜLLER, 1932 [SCHWEIZER (1935); not seen on Kimolos during the author's visit but seen in Ammonia Bay on the Island of Polyaigos on April 12, 2013, from where it was mentioned by STUBBS (1985)],

Zamenis situla (LINNAEUS, 1758) [CHONDROPOULOS (1989); not seen during the author's visit],

Telescopus fallax fallax FLEISCHMANN, 1831 [SCHWEIZER (1935); one specimen found under a stone in the vicinity of Aghios Grigorius Theologus by Günter Stadler on April 13, 2013],

Macrovipera schweizeri (WERNER, 1935) [BEDRIAGA (1882: 172); according to NILSON et al. (1999) the Kimolos population is estimated at approximately 800 specimens; about a dozen sightings during the author's visit, including a photograph taken by Peter Goop of one eating a mouse.].

Kimolos was visited on 5-17 April, 2013. Field work was hampered by the frequent Meltemi winds and mostly cool weather. In spite of the low annual precipitation of only about 400 mm, the island features a number of wetland structures including a medium-sized lagoon near Alvki. Seven more wetlands of Kimolos are included in the WWF wetland inventory for the Aegean (CATSADORAKIS & PARAGAMIAN 2007); they all were visited by the author. No running water was seen, but spring veins were found where open cisterns had been built to collect potable water (EHRENBERG 1889). Some water, remnants of the wet winter, was found in rocky sections of mountain streams, where bulrush (Typha domingensis) stands were common. Some of these wetland structures form potential

habitats for amphibious reptiles, like N. natrix schweizeri and Mauremys rivulata (VALENCIENNES, 1833). The Greek Marsh Frog, Pelophylax kurtmuelleri (GAYDA, 1940) is listed on the abovementioned Natura2000 data sheet GR 4220006 but was not mentioned from Kimolos in the monograph by VALAKOS et al. (2008). On the first day of fieldwork (April 6, 2013), calls of the Greek Marsh Frog were heard near Aghios Modhestos in a little valley to the south of the Village of Kimolos (Chora) where calls were heard in the evening on the eastern edge of the village. There, frogspawn was found in a pool near a wastewater channel on April 7, 2013, but dried out in the course of the following days. On July 4, 2013, a croaking frog was heard from a wet hollow near Kalamitsi (WWF inventory No. KIM 008) in the south of the island. After that, no more amphibian calls were heard.

Mario Schweiger (Obertrum, Austria) observed two to three M. rivulata in the above lagoon near Alyki (WWF wetland inventory No. KIM 001) towards the end of the 1980s (e-mail communication, October 20, 2011). In 2011, Thomas Reich (Zufikon, Switzerland) on the other hand found that the lagoon was already dry at the beginning of June (e-mail communication, October 20, 2011). During his visit in April 2013, the author found turbid shallow water in the lagoon but no sign of M. rivulata. The following habitats potentially suitable for Mauremys were found on the island: (i) the lowest section of a stream ending in the Fykiadha Bay, where it is impounded by the sandy beach over a length of about a hundred metres (WWF wetland inventory No. KIM 003); and (ii) two medium-sized ponds at an excavation site near Ag. Konstantinos (WWF wetland inventory Nos. KIM 8 and 10). Like the very large pond at Ag. Fanou near Prasa in the northeast of the island, they are probably resulting from recent mining activity. At the pond near Prasa (WWF) wetland inventory No. KIM 007), the call of Bufo viridis Laurenti, 1768, was thought to have been heard on April 6, 2013, but could not be verified in spite of repeated visits.

During field work on April 23, 2012, Konstantinos Kougioumoutzis (University of Patras) who currently works on the vascular plant life of Kimolos, encountered a

tortoise on the path from Skiadi to Paleokastro, which is far from civilization. From the photograph provided, the tortoise was identified as the common Greek species *Testudo marginata* SCHOEPFF, 1792, and most likely represented an escaped pet.

In total, thirteen amphibian and reptile species were reported from Kimolos to date.

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REFERENCES: BEDRIAGA, J. v. (1882): Die Amphibien und Reptilien Griechenlands.- Bulletin de la Société Impériale des Naturalistes de Moscou, Moskva; (1981) 56 (3): 278-344. BUTTLE, D. (1993): Notes on the herpetofauna of some of the Cyclades Islands, Greece.- British Herpetological Society Bulletin, London; 46: 5-14. BUTTLE, D. (1994): An addition to the article "Notes on the herpetofauna of some of the Cyclades Islands, Greece".- British Herpetological Society Bulletin, London; 47: 11. CATSA-DORAKIS, G. & PARAGAMIAN, K. (2007): Inventory of wetlands of the Aegean Islands: identity, ecological status and threats. Athinai (World Wide Fund for Nature -WWF Greece), 392 pp. [in Greek]. CHONDROPOULOS, B. P. (1989): A checklist of Greek reptiles, II. The snakes.- Herpetozoa, Wien; 2 (1/2): 3-36. EHRENBERG, K. (1889): Die Inselgruppe von Milos - Versuch einer geologisch-geographischen Beschreibung der Eilande Milos, Kimolos, Polivos und Erimomilos aufgrund eigener Anschauung. Leipzig (Gustav Fock), pp. 121. [Book Renaissance, reprint]. FOHRER, E. (2009): Kykladen; Erlangen (M. Müller Verlag), pp. 696. Nilson, G. & Andrén, C. & Ioannidis, Y. & Dimaki, M. (1999): Ecology and conservation of the Milos Viper, Macrovipera schweizeri (WERNER, 1935).-Amphibia-Reptilia, Leiden; 20: 355-375. Schweizer, H. (1935): Beitrag zur Reptilienfauna der Inselgruppe von Milos (Cycl.).- Blätter für Aquarien- und Terrarienkunde, Braunschweig; 46: 8-15. VALAKOS, E. & Pafilis, P. & Sotiropoulos, K. & Lymberakis, P. & MARAGOU, P. & FOUFOPOULOS, J. (2008): The amphibians and reptiles of Greece. Frankfurt a. M. [Frankfurt Contributions to Natural History, volume 32](Edition Chimaira), pp. 463. STUBBS, D. (1985): Biogenetic assessment for Vipera lebetina schweizeri and Podarcis milensis in the western Cyclades.- Report of the Societas Europea Herpetologia Conservation Committee, Strasbourg, pp. 45. WERNER, F. (1935): Reptilien der Aegäischen Inseln.- Sitzungsberichte der kaiserlichen Akademie der Wissenschaften, mathematisch-naturwissenschaftliche Klasse, Wien; 144: 81-117. WERNER, F. (1938): Die Amphibien und Reptilien Griechenlands. - Zoologica, Stuttgart; 35: 1-117.

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